To reach me,
email kalbertson@iise.org
or call (770) 449-0461, ext. 106.

Moving people around better through analytics

Many of us live in cities where traffic and mobility are a daily headache. And few places can top the aggravation found on the highways of metro Atlanta, my hometown and site of IISE headquarters.

As cities like Atlanta grow and add businesses, jobs and new residents, roads and transit systems become overtaxed despite local governments' efforts. Building new infrastructure to move the masses is extremely costly and time-consuming. In and around Atlanta, it seems highway projects are always in motion with orange barrels dotting the cityscape everywhere you turn.

Thus I was very interested last spring to see Pascal Van Hentenryck address urban mobility in his keynote speech at the IISE Annual Conference & Expo in Orlando. As a Georgia Tech industrial engineering professor, he faces his own half-hour daily commute to the Atlanta campus (see a video interview and excerpts from his speech at *link.iise.org/Annual2019VanHentenryck*). His fascinating presentation pointed out many of the challenges faced and opportunities available to move people more effectively in an interconnected world. He graciously agreed to summarize his findings in this issue's cover story on Page 28.

Van Hentenryck emphasizes how mobility issues go beyond being inconvenienced by traffic. While we fume impatiently waiting for the line to move, getting around is a more serious problem for people who lack suitable transportation to receive healthcare, buy decent groceries or transport their children to school. For them, mobility can be a daily struggle for survival.

Van Hentenryck's research focused on taking the effective elements of modern mobility and applying them to mass transit. That includes the ride-sharing systems made possible by technology and from companies like Uber and Lyft, which are convenient but don't really help ease traffic; four more wheels is still four more wheels. His idea is to blend mass transit – toting people about by train or bus in large volumes – and fix the "first/last mile" gap by adding door-to-door pick-up with shuttles and smaller conveyances. The result is a system that moves more people without adding more cars to clogged highways.

His work also tackled how to better coordinate car pools and ride-sharing services to match riders' destinations and schedules though an analytical approach that can put more people in each vehicle.

It's an ideal problem begging for an ISE solution and a data-driven approach. If implemented successfully, it can help get people to the services they need faster, more efficiently and economically.

As one who has spent decades negotiating the gridlocked highways of metro Atlanta and beyond, to that I say: Amen!